

modules. The idea is that it could be leased by municipalities and used as an alternative to conventional buses.

Filling

Filling the tanks with compressed air takes 3–4 minutes; therefore, the cars will also be able to be used for longer journeys. In addition to the compressed air refuelling option, the car has a built-in air compressor that can plug into any standard electric outlet and refill the tanks in 4 hours.

Development history

The Air Car has been in development for twenty years. The design, particularly the engine, has undergone several radical changes.

In the original Nègre air engine, one piston compresses air from the atmosphere to mix with the stored compressed air (which will cool drastically as it expands). This mixture drives the second piston, providing the actual engine power. Nègre's engine works with constant torque, and the only way to change the torque to the wheels is to use a pulley transmission of constant variation, losing some efficiency. Armando Regusci's version^[11] of the air engine has several advantages over the original Nègre design.

In Regusci's version, the transmission system is direct to the wheel, and has variable torque from zero to the maximum, enhancing efficiency. When the vehicle is stopped, Guy Nègre's engine has to be on and working, losing energy, while the Regusci's version need not. In 2001-2004 MDI switched to a design similar to that described in Regusci's patents, which date back to 1990^[12].

Zero Pollution Motors and MDI are among the teams who've committed to participation in the Progressive Insurance Automotive X Prize competition.^[13] As of September 2009 they do not appear on the list of registered teams^[14]. As of October 2009 it appears they did not qualify for the next stage in the competition^[15].

Production history

2000-2009: Production in France was claimed to be starting in late 2000^[16], and at frequent intervals, in several countries, thereafter.

2003: The Eolo Car is a version of the Air Car that was to be manufactured in Italy in 2003, but failed to get into production.

The Future: There are now 50 fabrication and distribution licenses signed in the world. Some of the countries that have signed agreements include France, Germany, Spain, Portugal, Italy, New Zealand, Israel, South Africa, etc.^[citation needed] Zero Pollution Motors would like to make MDI vehicles in the United States^[17]. The last one is MDI Andina S.A who would like to sell the car